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**DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FOR FISCAL YEARS 1988 AND 1989**



AD-A181 977

SUBMITTED TO CONGRESS JANUARY 1987

PROCUREMENT

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WEAPONS PROCUREMENT, NAVY

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DEPARTMENT OF THE NAVY
WEAPONS PROCUREMENT, NAVY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1988 AND 1989

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WEAPONS PROCUREMENT, NAVY

For construction, procurement, production, modification, and modernization of missiles, torpedoes, other weapons, and related support equipment including spare parts, and accessories therefor; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, [as follows: Poseidon, \$3,974,000; Trident I, \$4,739,000; Trident II, \$1,362,439,000; Poseidon modifications, \$95,000; Support equipment and facilities, \$3,790,000; Tomahawk, \$723,800,000; AIM/RIM-7 F/M Sparrow, \$269,394,000; AIM-9 L/M Sidewinder, \$35,800,000; AIM-54 A/C Phoenix, \$267,272,000; AIM-54 A/C Phoenix advance procurement, \$20,000,000; AGM-84A Harpoon, \$123,000,000; AGM-88A HARM, \$256,682,000; SM-2 MR, \$478,611,000; SM-2 ER, \$217,017,000; RAM, \$40,000,000; Stinger, \$39,740,000; Sidearm, \$22,858,000; Laser Maverick, \$165,691,000; IIR Maverick, \$35,200,000; Aerial Targets, \$96,000,000; Drones and decoys, \$36,136,000; Other missile support, \$22,017,000; Modification of missiles, \$13,692,000; Support equipment and facilities, \$74,803,000; Ordnance Support equipment, \$79,192,000; MK-48 ADCAP torpedo program, \$254,770,000; MK-46 torpedo program, \$97,861,000; MK-50 ALWT torpedo program, \$68,137,000; Anti-submarine rocket (ASROC) program, \$13,597,000; Vertical Launched ASROC, \$74,289,000; Modification of torpedoes, \$97,705,000; Torpedo support equipment program, \$52,610,000; MK-15 Close-In Weapons System program, \$105,606,000; MK-75 gun mount program \$14,875,000; MK-19 machine gun program, \$632,000; 25mm gun mount, \$3,919,000; Small arms and weapons, \$10,082,000; Modification of guns and gun mounts, \$57,215,000; Guns and gun mounts support equipment program, \$873,000; Spares and repair parts, \$150,734,000; In all: \$5,290,847,000]; \$6,502,332,000, of which \$4,183,000 shall be available only for the Navy Reserve and the Marine Corps Reserve, to remain available for obligation until September 30, 1989; Provided, That Within the total amount appropriated, the subdivisions within this appropriation shall be reduced by \$104,000,000] 1990.

Further, for the foregoing purposes, \$7,852,931,000, of which \$4,062,000 shall be available only for the Navy Reserve and the Marine Corps Reserve, to become available for obligation on October 1, 1988 and to remain available for obligation until September 30, 1991. (10 U.S.C. 5013, 5063, 7201; Department of Defense Appropriation Act, 1987, as included in Public Laws 99-500 and 99-591, section 101(c); additional authorizing legislation to be proposed.)

Weapons Procurement, Navy
Program and Financing (in thousands of dollars) SUMMARY

05 Jan 87

Identification code	17-1507-0-1-051	Budget Plan (Amounts for PROCUREMENT actions programmed)						Obligations								
		1986 actual			1987 est.			1988 est.			1986 actual			1987 est.		
		Program by activities:	1987 est.	1988 est.	1986 actual	1987 est.	1988 est.	1986 actual	1987 est.	1988 est.	1986 actual	1987 est.	1988 est.	1986 actual	1987 est.	1988 est.
00. 0001	Direct orders:															
00. 0001	Ballistic missiles	547,940	1,359,073	2,256,682	2,237,473	549,901	1,230,960	2,007,466	2,222,066							
00. 0001	Other missiles	3,131,983	2,968,006	3,317,987	4,397,721	3,249,357	2,507,661	3,206,439	3,035,953							
00. 0001	Torpedoes and related equipment	722,670	606,272	634,385	970,341	418,367	940,176	544,927	175,538							
00. 0001	Other repairs	205,674	186,721	101,540	103,669	156,848	224,219	120,005	153,471							
00. 0001	Spares and repair parts	148,171	145,777	139,728	143,727	82,720	182,072	135,532	146,510							
00. 9001	Total direct program	4,756,438	5,265,847	6,502,332	7,852,931	4,468,193	5,085,099	6,044,959	7,232,537							
01. 0001	Reimbursable program	27,491	31,000	31,930	32,888	20,694	41,061	31,930	32,888							
10. 0001	Total	4,783,529	5,296,847	6,534,262	7,885,819	4,488,887	5,126,150	6,046,959	7,265,425							
Financing:																
11. 0001	Offsetting collections from:															
11. 0001	Federal funds(-)	-1,497	-29,000	-29,870	-30,766	-30,927	-29,000	-29,870	-30,766							
11. 0001	Trust funds(-)	-25,964	-2,000	-2,060	-2,122	-22,413	-22,413	-22,413	-22,413							
11. 0001	Non-federal sources(-)	-30				-3	-3	-3	-3							
17. 0001	Recovery of prior year obligations															
21. 4002	Unobligated balance available, start of year:															
21. 4003	For compilation of prior year budget plans															
21. 4003	Available to finance new budget plans	-54,000	-274,700	-80,800	-99,265	-54,000	-2,098,824	-2,171,379	-2,422,876	-2,910,239						
22. 4007	Reprogramming funds to prior year budget plans	-21,387	-50,700	-50,700	-50,700	-50,700	-54,000	-54,000	-54,000	-54,000						
23. 4001	Unobligated balance transferred to other accounts	99,265	105,126	244,600	274,700	105,126	99,265	274,700	274,700	274,700						
23. 4002	Reduction pursuant to P.L. 99-177 in unob. bal.: Apr															
24. 4002	Unobligated balance available, end of year:															
24. 4003	For compilation of prior year budget plans															
25. 0001	Available to finance subsequent year budget plans	274,700	274,700	274,700	274,700	274,700	2,171,379	2,422,876	2,910,239	3,530,633						
39. 0001	Unobligated balance available, start of year:	11,496	11,496	11,496	11,496	11,496	11,496	11,496	11,496	11,496						
	Budget authority:															
40. 0001	Budget authority:	4,971,638	5,265,847	6,502,332	7,852,931	4,971,638	5,265,847	5,265,847	5,502,332	7,852,931						
41. 0001	Open obligation	4,971,638	5,290,847	6,502,332	7,852,931	4,971,638	5,290,847	5,290,847	5,502,332	7,852,931						
41. 0001	Transferred to other accounts (-)		-25,000				-25,000	-25,000	-25,000	-25,000						
43. 0001	Appropriation (adjusted)		4,971,638	5,265,847	6,502,332	7,852,931	4,971,638	5,265,847	5,265,847	5,502,332	7,852,931					
	Relation of obligations to outlays:															
11. 0001	Obligations incurred, net															
11. 0001	Obligated balance, start of year	4,465,515	5,155,924	6,014,959	7,232,537	4,465,515	5,155,924	6,014,959	7,232,537	7,232,537						
11. 0001	Adjustments in expired accounts	-6,136,382	-7,158,032	-8,612,101	-10,476,338	-6,136,382	-7,158,032	-8,612,101	-10,476,338	-10,476,338						
11. 0001	Adjustments in unexpired accounts	-3,020				-3,020										
10. 0001	Outlays															
		3,474,792	4,073,500	4,560,900	5,168,300											

Weapons Procurement, Navy
Object Classification (in Thousands of dollars) SUMMARY

05 Jan 87

	Identification code	17-1507-0-1-051	1986 actual	1987 est.	1988 est.	1989 est.
	Direct obligations:					
5.003	Other services:					
5.004	Contracts	121,118	138,287	165,176	198,600	
5.004	Other	3,777,371	4,690,714	5,542,131	6,666,161	
6.001	Supplies and materials	448,586	256,086	307,462	367,776	
11.001	Equipment					
19.001	Total Direct obligations	4,468,193	5,085,089	6,014,969	7,232,537	
	Reimbursable obligations:					
6.001	Supplies and materials					
19.001	Total Reimbursable obligations	20,694	41,061	31,930	32,988	
	Total obligations	20,694	41,061	31,930	32,988	
,9.901	Total obligations	4,488,887	5,126,150	6,046,899	7,265,475	

Weapons Procurement Navy Program and Financing (in thousands of dollars)		FISCAL YEAR 1984		05 Jan 87	
		Budget Plan (amounts programmed)		Obligations	
Identification code	17-1507-0-1-051	1986 actual	1987 est.	1986 actual	1987 est.
Program by activities:					
Direct program:					
00.0101	Ballistic missiles	43,975		321,259	
00.0201	Other missiles	73,768		10,997	
00.0301	Torpedoes and related equipment				
00.0401	Other weapons				
00.9101	Total direct program	449,999			
01.0101	Releasable program			1,924	
10.0001	Total	451,923			
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	-3,086			
13.0001	Trust funds(-)	7,083			
14.0001	Non-federal sources(-)	3			
17.0001	Recovery of prior year obligations				
	Unobligated balance available at start of year:				
21.4002	For completion of prior year budget plans	-83,489			
21.4007	Reprogramming from/to prior year budget plans	46,000			
22.4001	Unobligated balance transferred to other accounts	75,993			
23.4002	Reduction pursuant to P.L. 99-177 in unobd bal: Apn	11,496			
25.0001	Unobligated balance lapsing				
39.0001	Budget authority				

Weapons Procurement, Navy
Program and Financing (In Thousands of dollars) FISCAL YEAR 1985

05 Jan 87

Identification code	17-1507-0-1-051	Budget Plan (Amounts for PROCUREMENT actions programmed)						Obligations		
		1986 actual	1987 est.	1988 est.	1986 est.	1986 actual	1987 est.	1988 est.	1986 est.	
Program by activities:										
Direct program:										
00 0101	Ballistic missiles	496,886	604,751	59,100	42,623					
00 0201	Other missiles	68,633	149,798	496,886	496,886					
00 0301	Torpedoes and related equipment	43,067	38,016	68,633	68,633					
00 0401	Other weapons			43,067	43,067					
00 9101	Total direct program					852,885	651,209			
01 0101	Reimbursable program					632	708			
10 0001	Total					853,297	651,917			
Financing:										
Offsetting collections from:										
11 0001	Federal funds (-)					3,656				
12 0001	Trust funds (-)					-3,532				
14 0001	Non-federal sources(-)					4				
17 0001	Recovery of prior year obligations					-1,184				
Start of Year:										
21 1001	Unobligated balance available									
21 1002	For completion of prior year budget plans					-1,561,248				
21 4003	Available to finance new budget plans					-59,500				
21 4007	Reprogramming from prior year budget plans					53,265				
22 4001	Transferred to other accounts					-80,800				
23 4001	Unobligated balance remaining appropriation					59,500				
23 4002	Reduction pursuant to P.L. 98-177 (in unobligated balance): Apr					79,133				
24 4002	Unobligated balance available, end of year:					571,117				
24 4003	For completion of prior year budget plans					59,500				
24 4003	Available to finance subsequent year budget plans									
39 0001	Budget authority									

Weapons Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1986

05 Jan 87

Identification code	Program by activities:	Budget Plan (Amounts for PROCUREMENT Actions programmed)						Obligations
		1986 actual	1987 est.	1988 est.	1986 actual	1987 est.	1988 est.	
Program by activities: 17-1501-0-1-051								
00-0101 Direct program:								
00-020 Ballistic missiles	547,940				446,826	80,000	21,114	
00-030 Other missiles	3,131,983				2,322,347	310,262	499,374	
00-040 Torpedoes and related equipment	722,674				704,601	438,466	79,403	
00-050 Other weapons	205,674				108,635	74,782	22,057	
00-060 Spares and repair parts	148,171				462,720	65,451		
00-9101 Total direct program	4,756,438				3,165,529	968,961	621,948	
01-0101 Reimbursable program	27,491							
10-0000 Total	4,783,929				16,138	9,353		
Financing:								
11-0001 Offsetting collections from:								
Federal funds()								
13-0001 Trust funds()	-1,497							
14-0001 Non-Federal sources(-)	-25,964							
12-0001 Unobligated balance available, start of year:	-30							
21-4002 For completion of prior year budget plans								
21-4003 Available to finance new budget plans								
22-4001 Unobligated balance transferred to other accounts	-215,200							
23-4001 Unobligated balance retained: Appropriation	30,100							
24-4002 Unobligated balance available, end of year:	185,100							
24-4003 Available to finance prior year budget plans								
40-0001 Budget authority (appropriation)	215,200							
	4,971,638							
	4,971,638							

Program and Financing (in Thousands of dollars) FISCAL YEAR 1987
05 Jan 87

Identification code	17-1507-01-051	Plan (Amounts for PROCUREMENT						Obligations		
		Budget	Plan (Amounts for PROCUREMENT Actions, Org. & General)	1986 actual	1987 est.	1988 est.	1989 est.			
Program by activities:										
Direct program:										
00.0101	Ballistic missiles		1,359,073		1,108,277	142,070	108,726			
00.0201	Other missiles		2,868,006		1,700,513	610,312	457,181			
00.0301	Torpedoes and related equipment				433,077	82,253				
00.0401	Other weapons				106,430	48,546	90,940			
00.0501	Spares and repair parts				116,632	29,155	31,743			
00.9101	Total direct program		5,265,847			3,469,919	1,112,338	688,590		
01.0101	Reimbursable program									
10.0801	Total		31,000			31,000				
			5,296,847			3,495,919	1,112,338	688,590		
Financing:										
Offsetting Collections from:										
11.0001	Federal funds(-)				-29,000	-29,000				
13.0001	Trust funds(-)				-2,000	-2,000				
	Unobligated balance available, start of year:									
21.4002	For compilation of prior year budget plans									
24.4002	Unobligated balance available, end of year:									
	For compilation of prior year budget plans									
39.0001	Budget Authority									
			5,265,847			5,265,847				
Budget Authority:										
40.0001	Appropriation		5,290,847			5,290,847				
41.0001	Transferred to other accounts(-)				-25,000	-25,000				
43.0001	Appropriation (adjustments)		5,265,847			5,265,847				

05 Jan 87

Weapons Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1988

Identification code	Budget Plan (Amounts for PROCUREMENT actions programmed)						Obligations		
	1986 actual	1987 est.	1988 est.	1989 est.	1986 actual	1987 est.	1988 est.	1989 est.	
Program by activities:									
Direct program:									
00. 0101 Ballistic missiles					2,258,692			1,844,282	276,643
00. 0201 Other missiles					3,377,987			1,866,753	893,998
00. 0301 Torpedoes and related equipment					634,395			383,771	140,533
00. 0401 Other weapons					10,540			50,000	37,669
00. 0501 Spares and repair parts					129,778			106,377	23,351
00. 9101 Total direct program					6,502,332			4,260,983	1,372,198
01.0001 Reimbursable programs					31,930			31,930	
10. 0001 Total					6,534,262			4,322,613	1,372,195
Financing collections from:									
11. 0001 Federal funds(-)					-28,870			-29,870	
13. 0001 Trust funds(-)					-2,060			-2,060	
13. 0002 Unobligated balance available, start of year:									
21. 40002 For completion of prior year budget plans									
24. 40002 Unobligated balance available, end of year:									
24. 40002 For completion of prior year budget plans									
40. 0001 Budget authority (appropriation)					6,502,332			6,532,332	

Weapons Procurement, Navy
Programs and Financing (in Thousands of Dollars) FISCAL YEAR 1989

05 Jan 87

Budget Plan (Amounts for PROCUREMENT actions programmed)

Identification code	17-1507-0-1-051	Obligations								
		1986 actual	1987 est.	1988 est.	1989 est.	1986 actual	1987 est.	1988 est.	1989 est.	
Program by activities:										
Direct program:										
00 0101	Ballistic missiles	2,237,473	2,336,687	2,384,721	2,444,673	4,397,721	4,397,721	4,397,721	4,397,721	
00 0201	Other missiles	970,341	644,065	970,341	970,341	84,059	84,059	84,059	84,059	
00 0301	Torpedoes and related equipment	143,727	122,168	143,727	143,727	143,727	143,727	143,727	143,727	
00 0401	Other weapons	-	-	-	-	-	-	-	-	
00 0501	Spare and repair parts	-	-	-	-	-	-	-	-	
00 9101	Total direct program	-	-	-	-	-	-	-	-	
01 0101	Reimbursable program	32,686	32,686	32,686	32,686	32,686	32,686	32,686	32,686	
10 0001	Total	-	-	-	-	7,885,819	7,885,819	7,885,819	7,885,819	
Financing:										
Offsetting collections from:										
11 0001	Federal funds (-)	-30,766	-30,766	-30,766	-30,766	-2,122	-2,122	-2,122	-2,122	
13 0001	Trust funds (-)	-	-	-	-	-	-	-	-	
24 4002	Unobligated balance available, end of year: For completion of prior year budget plans	-	-	-	-	-	-	-	-	
40 0001	Budget authority (appropriation)	7,852,931	7,852,931	7,852,931	7,852,931	7,852,931	7,852,931	7,852,931	7,852,931	

Summary of Requirements
 (In Thousands of Dollars)

	FY 1986 <u>Actual</u>	FY 1987 <u>Estimate</u>	FY 1988 <u>Estimate</u>	FY 1989 <u>Estimate</u>
Ballistic Missiles				
Other Missiles	547,940	1,359,073	2,258,692	2,237,473
Torpedoes and Related Equipment	3,131,983	2,968,006	3,377,987	4,397,721
Other Weapons	722,670	606,270	634,385	970,341
Spares and Repair Parts	205,674	186,721	101,540	103,669
	148,171	145,777	129,728	143,727
TOTAL Direct Program	4,756,438	5,265,847	6,502,332	7,852,931
Reimbursable Program	27,491	31,000	31,930	32,888
TOTAL Program Requirements	4,783,929	5,296,847	6,534,262	7,885,819

BUDGET ACTIVITY 1: BALLISTIC MISSILES

	(\$ in thousands)
FY 1989 Estimate	- \$2,237,473
FY 1988 Estimate	- \$2,258,692
FY 1987 Estimate	- \$1,359,073
FY 1986 Actuals	- \$ 547,940

Purpose and Scope of Work: These funds provide for the procurement of fleet ballistic missiles, ancillary checkout and test equipment, missile modifications, and support equipment and facilities required to outfit and support the submarines assigned to the seabased strategic deterrent forces.

Justification of Funds: Of the \$2,258.7 million requested in FY 1988, \$2,258.5 million is for ballistic missiles, and \$0.2 million is for support equipment and facilities.

Of the \$2,237.5 million requested in FY 1989, \$2,234.9 million is for ballistic missiles, and \$2.6 million is for support equipment and facilities.

BALLISTIC MISSILES

	(\$ in thousands)
FY 1989 Estimate	- \$2,234,849
FY 1988 Estimate	- \$2,258,498
FY 1987 Estimate	- \$1,355,316
FY 1986 Actuals	- \$ 537,401

Of the \$2,258.5 million requested for ballistic missiles in FY 1988, \$0.2 million is for POSEIDON, \$7.0 million is for TRIDENT I, \$1,931.3 million is for TRIDENT II, and \$320.0 million is for TRIDENT II Advance Procurement.

Of the \$2,234.9 million requested for ballistic missiles in FY 1989, \$0.2 million is for POSEIDON, \$7.6 million is for TRIDENT I, \$1,966.9 million is for TRIDENT II, and \$260.2 million is for TRIDENT II Advance Procurement.

POSEIDON Missile

	(\$ in thousands)		
	FY 1988 Qty	FY 1989 Amount \$181	FY 1989 Qty -
Procurement Cost			

To maintain the effectiveness of the Fleet Ballistic Missile System against postulated enemy defensive capabilities of the next decade, the Navy was directed in FY 1966 to develop and deploy the POSEIDON weapon system. The principal advantage of the POSEIDON over its predecessor, the POLARIS, is its adaptability to overcome a broad spectrum of defenses, as they may materialize from Soviet Anti-Submarine Warfare (ASW) and Anti-Ballistic Missile (ABM) development programs. POSEIDON missiles are no longer being procured; however, funding is required to support missile flight tests which will continue throughout the operational life of the weapon system. This testing is necessary to evaluate the readiness of deployed missiles in accordance with Joint Chiefs of Staff test criteria.

The FY 1988 and FY 1989 funding requests will procure MK-3 reentry system components whose limited operational life requires their periodic replacement by the Department of Energy under the Limited Life Component Exchange Program.

TRIDENT I Missile

	(\$ in thousands)		
	FY 1988 Qty	FY 1989 Amount \$6,986	FY 1989 Qty -
Procurement Cost			

The TRIDENT mission is to provide an undersea missile system in order to ensure that the U.S. continues to maintain a credible deterrent independent of foreseeable threats in the 1990's and beyond. To accomplish this mission, the TRIDENT I missile was developed to support two separate systems. The TRIDENT II system is comprised of Continental United States based nuclear powered submarines equipped with long range TRIDENT I strategic missiles and associated direct support shore facilities. The TRIDENT I Backfit system provides TRIDENT I missiles for backfit into existing POSEIDON submarines, thereby providing these submarines a greater range of patrol in order to insure their survivability in the event of unforeseeable enemy breakthroughs in ASW capabilities.

Within the current TRIDENT I missile program of 570 missiles procured between FY 1977 and FY 1984, missile production deliveries were scheduled at quantities necessary to maintain quality and a smooth production rate and to provide for submarine requirements, replacement of missiles returned from the fleet for repair and surveillance, and expenditures during demonstration firings and operational tests. Based on current program guidance, TRIDENT I missile procurements will support the ultimate deployment of eight TRIDENT submarines, twelve Backfit submarines and additional missiles to continue the Fleet Return and Evaluation Program (PRREP) and DASO/FOR programs. Although FY 1984 marked the final year of TRIDENT I missile procurement, funding is required in subsequent years for equipment procurements and for equipment procurements throughout the acquisition of MK-5 guidance system components which will continue through the associated with the C-4 flight test program, which will continue to evaluate the operational life of the weapon system. This testing is essential to evaluate the readiness of deployed missiles in accordance with Joint Chiefs of Staff test criteria.

The FY 1988 and FY 1989 TRIDENT I missile requests of \$7.0 million and \$7.6 million respectively will provide for procurements essential to the continued support of MK-5 guidance and MK-4 reentry systems.

TRIDENT II MISSILE

Procurement Cost	(\$ in thousands)			
	FY 1988 Qty	FY 1988 Amount	FY 1989 Qty	FY 1989 Amount
	66	\$1,931,344	66	\$1,966,858

The TRIDENT II missile will be carried on TRIDENT Fleet Ballistic Missile Submarines, ensuring that the United States will continue to maintain a highly survivable strategic deterrent for the 1990's and beyond. Deployment of the TRIDENT II missile will (1) enhance Fleet Ballistic Missile survivability by increasing Sea Launched Ballistic Missile range at full payload to exploit the total patrol area available to the TRIDENT submarine, (2) minimize total weapon system costs by increasing Sea Launched Ballistic Missile payload to the level permitted by the size of the TRIDENT submarine launch tube, thereby allowing mission capability to be achieved with a lesser number of submarines, (3) balance the triad by adding efficient hard target kill capability to the Sea Launched Ballistic Missile, and (4) enhance essential equivalence with the Soviets in accordance with perceived needs to increase our warhead inventory, throw weight, and accuracy in the presence of increasing Soviet capabilities and force levels.

Funding in this line is required to support the procurement of an all new TRIDENT II missile, initial production of which commences in FY 1987 and to which the following key program milestones apply:

- TRIDENT II missile Initial Operational Capability (IOC) - December 1989
- First Performance Evaluation Missile (PEM) flight test - March 1989
- Start PEM missile processing at Strategic Weapons Facility, Atlantic (SWFLANT) - July 1988
- SWFLANT installation, test, checkout and equipment/facility integration beginning in FY 1987
- Equipment procurements in FY 1986 through FY 1989 based on leadtime away requirements

The FY 1988 funding request of \$1,931.3 million will support the first full year's production of 66 TRIDENT II missiles; production of associated guidance and flight test instrumentation systems; procurement of MK-4 and MK-5 reentry systems; and SWFLANT production planning, activation, and initial equipment outfitting essential to establishing a TRIDENT II missile processing capability. The FY 1989 funding request of \$1,966.9 million will support production of an additional 66 TRIDENT II missiles; production of associated guidance and flight test instrumentation systems; procurement of MK-4 and MK-5 reentry systems; additional SWFLANT production planning, activation, and initial equipment outfitting; and planning, activation, and initial equipment outfitting required to establish a TRIDENT II missile processing capability at the Strategic Weapons Facility, Pacific (SWFPAC).

TRIDENT II Missile Advance Procurement

	(\$ in thousands)	
	FY 1988	FY 1989
	<u>Amount</u>	<u>Amount</u>
Advance Procurement Cost	\$319,987	\$260,240

Funding in this line is required to support the advance procurement of those commodities, components, subassemblies and materials having longer manufacturing leadtimes than the using TRIDENT II end items. Advance procurement requirements for these long lead commodities are budgeted one year in advance of the using end items, which are fully funded in the procurement line, and funding levels are established commensurate with the quantity of end items to be procured.

The FY 1988 request of \$320.0 million and the FY 1989 request of \$260.2 million will provide for procurement of long lead items required to support production in FY 1989 and FY 1990 respectively of TRIDENT II missiles, MK-6 guidance systems, and special purpose instrumentation used in the TRIDENT II flight test program.

MODIFICATION OF MISSILES

	(\$ in thousands)
FY 1989 Estimate	-\$ -0-
FY 1988 Estimate	-\$ -0-
FY 1987 Estimate	-\$ 92
FY 1986 Actuals	-\$ -0-

Requirements for POSEIDON missile alterations (SPALTS) are determined only after thorough investigation has established the need for a change in system or equipment configuration, the total estimated cost and the impact of the proposed change have been defined, and the proposal has been subjected to intense screening to determine a positive advantage to the system. POSEIDON SPALTS are funded only when correction of a known deficiency is required, a component is no longer procurable in its original configuration, or it is necessary to accept a substitute part of an existing subassembly.

SUPPORT EQUIPMENT AND FACILITIES

	(\$ in thousands)
FY 1989 Estimate	\$ 2,624
FY 1988 Estimate	\$ 194
FY 1987 Estimate	\$ 3,665
FY 1986 Actuals	\$10,539

The support equipment and facilities requests provide for the procurement of missile industrial facilities.

Missile Industrial Facilities

	(\$ in thousands)
	<u>FY 1988</u>
Procurement Cost	<u>Amount</u>
	\$ 194
	<u>FY 1989</u>
Procurement Cost	<u>Amount</u>
	\$2,624

Funding for Missile Industrial Facilities provides for capital maintenance projects at Navy-owned Naval Industrial Reserve Ordnance Plants (NIROPS) at Sunnyvale and Santa Cruz, California and Bacchus, Utah in support of the Fleet Ballistic Missile program.

Projects planned in FY 1988 and FY 1989 include additions and modifications to, and rehabilitation of, civil works, non-severable equipment, and real property. Among those projects which are generated as a result of government mandated energy conservation and environmental protection laws and by safety and security considerations are the following: converting street lights to low pressure sodium, refurbishing fume ducts and vent fans, refurbishing fire sprinkler trees, and repairing and replacing perimeter fencing.

Budget Activity 2: Other Missiles

	(\$ in Thousands)
FY 1989 Estimate	\$ 4,397,721
FY 1988 Estimate	\$ 3,377,987
FY 1987 Estimate	\$ 2,968,006
FY 1986 Actual	\$ 3,131,983

Purpose and Scope of Work

Funds budgeted under this activity finance the procurement and modification of strategic and tactical guided missiles, drones and decoys, and aerial targets. In addition, funds provide for other missile support, ordnance support equipment, weapons industrial facilities and for the support of satellites, launches, and associated equipment for the Fleet Satellite Communication system and the Defense Meteorological Satellite program.

Guided missiles are procured for operational inventory requirements to meet combat sustainability objectives, combat usage, quality assurance testing, and training purposes. Aerial targets are required to support training programs and to permit evaluation of missile performance. Drones and decoys are procured to improve the survivability of Navy aircraft, and to provide gunfire support and essential relays in tactical situations. Procurement funds provide for (1) the components that comprise the end-items, such as guidance, control, motors, warheads, and fuzes, (2) effort and hardware associated with the production and assembly of these items, such as production engineering, production proofing, tools and test equipment, and (3) special handling and test equipment, training materials and other specialized items required for operational fleet support of the item.

Justification of Funds

The Chief of Naval Operations establishes operational and training objectives consistent with the Navy's assigned role in national defense. These objectives are translated into annual procurement programs in accordance with logistics guidance set forth by the Secretary of Defense, taking into account available fiscal resources. The resultant procurement plan is designed to maintain an effective mix of weapons in the combat inventory, and to provide weapons and targets in support of training, evaluation, and pipeline requirements. In developing the plan, the Navy considers production feasibility and assures that missile deliveries are compatible with aircraft and ship testing, production, development, and deployment schedules.

The following paragraphs provide justification for the Other Missiles procurement programs. Initial spare parts amounts are included for information under each missile but are separately addressed in the spares and repair parts category of the Budget Activity 5 Justification.

Strategic Missiles

	(\$ in Thousands)	
FY 1989 Estimate	\$1,029,686	
FY 1988 Estimate	\$ 993,942	
FY 1987 Estimate	\$ 717,627	
FY 1986 Actual	\$ 649,364	

BGM-109 TOMAHAWK Cruise Missile

	(\$ in Thousands)	
	FY 1988	FY 1989
	Qty	Qty
	Amt	Amt
Procurement	475	915,936
Advance Procurement		78,006
Initial Spares		21,574
Procurement Cost	\$1,015,516	\$1,27,234

The **TOMAHAWK** cruise missile provides an attack capability against targets at sea (anti-ship Tomahawk) and on land (land-attack Tomahawk). **TOMAHAWK** is capable of being launched from aircraft, ships, submarines, and ground launchers. The cruise missile can be fitted with either a conventional high explosive or nuclear warhead, and is propelled in flight by a small turbofan engine. The FY 1988 request of \$993.9 million, which includes \$78.0 million of advance procurement for FY 1989, will procure 80 anti-ship and 395 land attack missiles. The FY 1989 request of \$1,029.7 million, which includes \$88.6 million of advance procurement for FY 1990, will procure 75 anti-ship and 435 land attack missiles. The Tomahawk missile is designed to be deployed in submarines and surface ships in a variety of launchers.

Tactical Missiles

	(\$ in Thousands)	
FY 1989 Estimate	\$2,519,692	
FY 1988 Estimate	\$1,910,689	
FY 1987 Estimate	\$2,088,499	
FY 1986 Actual	\$2,348,180	

Funds budgeted under this category finance the procurement of air-, surface-, and submarine-launched missiles, other missile support, aerial targets, and drones and decoys.

AIM-120A AMRAAM

(\$ in Thousands)			
		FY 1988	FY 1989
Qty	Amt	Qty	Amt
Procurement	\$ -	50	\$ 118,364
Initial Spares	\$ -	-	\$ -
Procurement Cost	\$ -	-	\$ 118,364

The AMRAAM (Advanced Medium Range Air-to-Air Missile) missile is the successor to the SPARROW missile being procured by both the Air Force and the Navy. The Air Force serves as executive service. The missile will provide an all-weather, all-aspect, beyond-visual-range, air-to-air missile compatible with the F-14, F-15, and F-16, F/A-18, and A-6E Upgrade aircrafts. The AMRAAM missile will enhance Navy war-fighting capability in the 1990's and beyond through significant improvements in operational utility and combat effectiveness. The \$118.4 million requested in FY 1989 will provide for the initial Navy procurement of 50 AMRAAM missiles.

AIM-9L/M SIDEWINDER Missile

(\$ in Thousands)			
		FY 1988	FY 1989
Qty	Amt	Qty	Amt
Procurement	\$ 288	\$ 43,320	\$ -
Initial Spares	\$ -	\$ 90	\$ -
Procurement Cost	\$ 288	\$ 43,410	\$ -

The SIDEWINDER AIM-9L/M is a joint Navy and Air Force short-range, air-to-air, infrared (IR), dogfight missile employed by both fighter and attack aircraft. The all-aspect launch capability is a significant improvement over previous SIDEWINDER versions and greatly increases the firing envelope. The AIM-9M, a product improvement of the AIM-9L, provides for improved counter-countermeasures capability and an improved ability to acquire targets in high IR clutter background. The procurement of 1,244 guidance units (288 missiles for Navy and 956 missiles for Air Force) in FY 1988 will be competed between the two mobilization base producers, Ford Aerospace and Raytheon. With the winner being awarded a larger quantity. The \$43.3 million requested in FY 1988 will procure 288 missiles required to continue inventory build-up of the AIM-9M version and will be the first-line, short-range, air-defense missile through the 1990's. No request is submitted for FY 1989 since the Navy completes procurement of Sidewinder missiles with the FY 1988 procurement.

AIM-54A/C PHOENIX Missile

	(\$ in Thousands)	
	<u>FY 1988</u>	<u>FY 1989</u>
	<u>Qty</u>	<u>Amt</u>
Procurement	430	\$ 397,996
Initial Spares	628	\$ 560
Procurement Cost	\$ 398,624	\$ 464,969
		216
		\$ 465,185

The PHOENIX missile system is comprised of a long-range, airborne weapon control system (AN/AWG-9) with multiple target-handling capabilities and long-range missiles utilizing semi-active, mid-course and active terminal guidance. Its mission is to kill multiple air targets with conventional warheads. Six such missiles can be carried aboard the F-14 aircraft. Near simultaneous launch is possible against six targets in an all-weather and heavy-jamming environment. The improved Phoenix missile, the AIM-54C, provides improved lethality, stream raid discrimination, electronic counter countermeasure (ECCM) performance, high and low altitude performance, and improved reliability and maintainability. As a result of these improvements, the missile has greater capability to counter the projected MiG-25 FOXBAT aircraft and cruise missile threats. The PHOENIX does not replace any other missile. The \$398.0 million requested in FY 1988 will finance the procurement of 430 PHOENIX missiles configured in the improved AIM-54C version including a directed procurement of 180 missiles from the second source contractor. Competitive procurement of the PHOENIX missile is scheduled to begin in FY 1989 with a request of \$465.0 million for 560 missiles. The FY 1988 and FY 1989 missiles are needed to continue to increase the number of operational PHOENIX missiles in the active inventory, and to offset the loss of older AIM-54A missiles that are expended or suffer irreparable failure.

AGM/RGM/UGM-84A/E HARPOON Missile (Multiyear Procurement)

	(\$ in Thousands)	
	<u>FY 1988</u>	<u>FY 1989</u>
	<u>Qty</u>	<u>Amt</u>
Procurement	124	\$ 130,694
Advance Procurement		31,000
Initial Spares		10,285
Procurement Cost		\$ 171,979
		\$ 5,886
		\$ 139,174

The HARPOON is an air-, surface-, and submarine-launched cruise missile which provides an attack capability against targets at sea and on land. It uses an active or passive seeker, radar altimeter, and attitude reference assembly in conjunction with a small digital computer for missile guidance and control. It is propelled by a turbo-jet sustainer engine, augmented by a solid booster for ship and

submarine launch. The missile has a standard 13.5 inch diameter with a weight of 1,100 pounds for air launch and 1,500 pounds for ship launch. It is compatible with the TARTAR, TERRIER, and ASROC ship launchers as well as with aircraft and submarine launch systems. The missile is planned for use aboard the FF-1052, DDG and DD-963, CG, CGN, PHM, BB, and FFG class ships, the P-3, S-3, A-6, F/A-18, and B-52G aircraft and nuclear attack submarines. The 1988 request of \$161.7 million provides for procurement of 124 HARMON missiles (95 air-launch anti-ship and 29 air-launch land attack missiles) and includes \$31.0 million for advance procurement in support of the FY 1988-1992 multi-year procurement. Beginning with FY 1988, a five-year multiyear contract will be awarded with anticipated savings of 10 percent for the hardware costs. The FY 1989 request of \$133.3 million will provide for 138 HARMON missiles. These weapons are requested to ensure adequate availability of weapons as new platforms are made operational, and to offset missile expenditures consumed in training and test requirements.

AGM-88A HARM Missile

(\$ in Thousands)			
FY 1988		FY 1989	
Qty	Amt	Qty	Amt
Procurement	\$ 194,728	1,766	\$ 404,926
Initial Spares	10,324		5,663
Procurement Cost	\$ 205,052		\$ 410,589

The High Speed Anti-Radiation Missile (HARM) is a joint Navy and Air Force air-to-surface missile designed to suppress or destroy land- and sea-based radars which support enemy air defense systems. HARM is a design evolution of anti-radiation missiles (ARM) such as SHRIKE and STANDARD ARM, and is planned to replace both missiles in the Navy inventory. HARM characteristics include: high speed, large-launch envelope, wide-band-frequency coverage in a single head, high sensitivity and compatibility with various naval aircraft. The HARM has evolved from known and predicted deficiencies in SHRIKE and STANDARD ARM missiles in defeating current and future enemy air defense systems. Initial procurement commenced in FY 1981. The FY 1988 request of \$194.7 million will procure 766 HARM missiles for the Navy. Failure to provide the requested number of missiles will seriously degrade the Navy's ability to counter the threat to aircraft and aircrews posed by enemy air defense systems. This procurement in FY 1988 will significantly increase the number of missiles in the inventory. In FY 1988, 2,514 HARM missiles will be produced (766 missiles for Navy and 1,748 missiles for Air Force). The \$404.9 million requested in FY 1989 will procure 1,766 HARM missiles for the Navy.

STANDARD MISSILE (SM-2 MEDIUM RANGE/EXTENDED RANGE)

	(\$ in Thousands)	
	FY 1988	FY 1989
	Qty	Amt
Procurement	1,150	\$ 583,098
Initial Spares		1,635
Procurement Cost		\$ 832,495
	17,202	16,073
	600,300	

The STANDARD missile is a solid-propellant, tail-controlled, surface-to-air and surface-to-surface missile with mid-course and semi-active homing guidance, home-on jamming capability, and proximity and contact fusing. The SM-2 Block II Medium Range (MR) missile will be deployed on Tartar New Threat Upgrade ships, Aegis CG 47/51 cruisers, and Aegis DODG-51 destroyers. The SM-2 Block II Extended Range (ER) missile will be deployed on Terrier CG and New Threat upgrade ships. The FY 1988 request introduces competition of the guidance, control and autopilot and the MK 104 dual thrust rocket motor. The FY 1988 request of \$583.1 million is for a total procurement of 1,150 missiles. The FY 1989 request of \$816.4 million is for a total procurement of 1,635 missiles.

RIM-116A ROLLING AIRFRAME MISSILE (RAM)

	(\$ in Thousands)	
	FY 1988	FY 1989
	Qty	Amt
Procurement	240	\$ 44,931
Initial Spares		260
Procurement Cost		\$ 51,825
	627	638
	45,558	

The Rolling Airframe Missile (RAM) is a high-power, low-cost, lightweight, complementary self-defense system to engage anti-ship capable missiles. It has dual-mode, passive radar-frequency/infrared guidance and will be fired from two launching systems: the NATO SEASPARROW Surface Missile System (NSSMS), of which two cells of the NSSMS system will be modified to hold five (5) RAM rounds each; and a RAM stand-alone Command and Launch System that holds 21 missiles. Components of the missile will be procured competitively between a U.S. and a German prime contractor. The FY 1988 budget request of \$44.9 million will provide for 240 missiles and associated support costs; the FY 1989 budget request of \$51.8 million will provide for 260 missiles and associated support costs.

FIM-92A STINGER Missile (Multiyear Procurement)

(\$ in Thousands)			
	FY 1988	FY 1989	
Qty	Amt	Qty	Amt
Procurement	\$ 425	\$ 21,072	
Initial Spares			
Procurement Cost		\$ 21,072	

STINGER is a man-portable, air defense missile system for countering low-altitude, close-range air attack against ships or combat personnel. STINGER uses a passive infrared/ultraviolet homing and guidance system that operates independently after initial aiming and launching. The STINGER system is composed of the missile, launcher, trainers, and ancillary equipment. The FY 1988 request of \$21.1 million provides for the procurement of 425 STINGER Missiles, and associated production and Fleet support requirements. The request reflects cost savings under a new Army three-year multiyear contract. No request is submitted for FY 1989 since the Navy completes procurement of Stinger missiles with the FY 1988 procurement.

AGM-122A SIDEARM Missile

(\$ in Thousands)			
	FY 1988	FY 1989	
Qty	Amt	Qty	Amt
Procurement	\$ 276	\$ 25,381	
Initial Spares			
Procurement Cost		\$ 101	\$ 509
		\$ 25,482	\$ 25,491

The SIDEARM is a short-range, limited frequency-band, anti-radiation missile being developed to counter point defenses. The Marine Corps plans to use the missile primarily as a quick reaction, point and shoot weapon from the AH-1 attack helicopter. Future plans are to launch the SIDEARM from SIDEWINDER configured AV-8B, F/A-18, and OV-10D aircraft. No modifications to existing rotary and fixed wing avionics interfaces are required. The SIDEARM engineering development and procurement concept uses converted AIM-9C guidance and control section (GCS), integrated with components (motor, fuze, warhead, and safe and arm device) from current production AIM-9M SIDEWINDER missiles. There are approximately 1,000 GCS assets, currently in storage of which it is estimated that 885 will be suitable for conversion to the SIDEARM configuration. Procurement commenced in FY 1986 with an initial production of 200 missiles. The FY 1988 request of \$25.4 million is required for procurement of 276 missiles. The \$25.0 million requested in FY 1989 will procure 269 missiles.

AGM-114A HELLFIRE Missile

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	Qty	Amt
Initial Spares	1,393	\$ 44,154
Procurement Cost	\$ 44,633	\$ 48,468

HELLFIRE, developed by the Army, provides the Marine Corps with an extremely effective laser-guided, anti-armor weapon for use on AH-1T/J helicopters. The FY 1988 request of \$44.2 million will provide for procurement of 1,393 HELLFIRE missiles. The \$47.6 million requested in FY 1989 will procure 1,410 HELLFIRE missiles. The FY 1988 and FY 1989 procurements are required to build up the inventory of HELLFIRE missiles to satisfy Marine Corps requirements.

AGM-65E LASER MAVERICK Missile

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	Qty	Amt
Initial Spares	1,099	\$ 111,807
Procurement Cost	\$ 117,180	\$ -2,033

The LASER MAVERICK is a forward-fired, laser-guided missile that can be employed from land or carrier-based aircraft, and will be delivered primarily for A-4M, AV-8B, F/A-18, and A-6E Marine Corps aircrafts. It will be used for interdiction, close-air support and strike requirements against both land and sea targets. In FY 1988 \$111.8 million is requested for the final procurement of 1,099 LASER MAVERICK missiles. The FY 1988 procurement is required to continue to build up inventory levels of LASER MAVERICK to satisfy interdiction, close air support, and strike requirements.

AGM-65F IIR MAVERICK Missile (Multiyear Procurement)

(\$ in Thousands)				
	FY 1988	FY 1989		
Qty	Amt	Qty	Amt	
Procurement				
Advance Procurement	601	\$ 103,458	731	\$ 106,158
Initial Spares		-		
Procurement Cost		292	24,814	
	<u>\$ 103,750</u>		<u>\$ 131,553</u>	
Initial Spares		581		

The Imaging Infrared (IIR) MAVERICK missile has been developed as a joint service program with the Air Force as executive service. The Navy version of the weapon utilizes an IIR guidance unit optimized for ship tracking, a 300-pound penetrating blast/fragment warhead with cockpit-selectable fuzing, and a reduced-smoke rocket motor. The IIR MAVERICK missile will provide the Navy and Marine Corps with the capability to attack land and sea targets from a more survivable position below and outside of close-in air defense systems. The FY 1988 request of \$103.5 million and FY 1989 request of \$106.2 million will provide for the procurement of 601 and 731 IIR MAVERICK missiles, respectively, to continue build up inventory requirements. Failure to add the weapon to the inventory will require that attack aircraft utilize munitions with less stand-off capability that will increase the likelihood of aircraft loss. Additionally, the FY 1989 request for \$24.8 million of advance procurement funds is required to initiate a four-year multiyear procurement.

PENGUIN Missile

(\$ in Thousands)			
	FY 1988	FY 1989	
Qty	Amt	Qty	Amt
Procurement			
Advance Procurement		-	
Initial Spares		3,455	
Procurement Cost		<u>\$ 3,455</u>	
			<u>\$ 37,622</u>
Initial Spares		674	

The PENGUIN missile is an autonomous short-range, air-to-surface weapon which is controlled by an infrared, countermeasures resistant seeker that is automatically activated when the missile reaches a preset range from the predicted position of the target. The missile is planned for use on the LAMPS MK-111 SH-60B helicopter as an anti ship weapon. The MK 2 Mod 7 PENGUIN missile is a modification of the surface-launched MK 2 Mod 3 missile. The FY 1988 request of \$3.5 million provides for the advancement of long lead time materials in support of the FY 1989 initial procurement of PENGUIN missiles. The \$36.9 million requested in FY 1989 will procure 64 PENGUIN missiles and includes \$3.5 million for advance procurement for FY 1990.

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Aerial targets provide the representative threats needed to properly evaluate weapons systems and to provide for an effective fleet training program. The BGM-74C and the BGM-345 are both recoverable, supersonic targets that are required for both surface to air and air to air missile and gunnery exercises. The AGM-37C is a non-recoverable, supersonic target, which replicates high speed threats. In FY 1988 the remaining \$31.0 million finances the material costs for the AGM-37C and BGM-74C procurements, and the low targets conversion of 1/3 BGM-345 aircraft into 1/3 BGM-345 and AGM-37C aircraft. The remaining \$192.8 million of the total \$192.8 million request of \$135.6 million continues these procurement programs, and initiates large auxiliary equipment required for target control and augmentation, and BGM-345 target costs. The FY 1989 request of \$111 million for the acquisition of the BGM-345A subsonic, subscale target (200 units) for \$11 million

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Procurement Cost	FY 1988			FY 1989		
	Dir	Ant	Dir	Ant	Dir	Ant
\$ (in thousands)	63,34	63,34	125,463	125,463		

Analysis of the successful use of small scale, air launched decoys has resulted in an emergent requirement for these devices. Tactical decoys have been proven effective against air defenses and will significantly improve the survivability of heavy aircraft. The tactical Air Launched Decoy is a high speed, preprogrammed tactical decoy carried from A-6 and A-7 aircraft. It provides passive and active radar cross section signature augmentation for use as a force multiplier. Remotely Piloted Vehicles (RPVs) are low speed, long endurance systems that provide intelligence, battlefield surveillance, target acquisition, target destruction, and communication relays. In FY 1988 and FY 1989, \$63.6 and \$125.6 billion/artillery gun fire support and communications; the continued procurement of needed drones; and decoys.

- Harpoon can also be surface-launched.

	FY 1986 Readiness Missions	
	(in thousands)	(in thousands)
TOMAHAWK	6,459	6,459
STINGER Missions	3,803	3,803
SHRIKE-Launcher Missions	3,803	3,803
PROWLER	5,541	5,541
TOTAL	\$10,291	\$10,291
	\$5,222	\$5,222
WARRIOR	3,803	3,803

The FY 1986 budget request for missile modifications is \$15.6 million and includes funds for procurement, initial support, and support of missile modification programs. All these costs are budgeted in the Operation and Maintenance, Navy appropriation. Funds requested provide for the procurement of current and new surface launched missile modifications. Funds requested provide for the procurement of inertially guided anti-submarine weapons for SSM-2 missiles and Type II missiles and Type II missiles and Type II missiles for Tomahawk Cruise Missiles.

	(in thousands)	
	FY 1986 Estimate	FY 1986 Actual
Procurement	980,911	947,789
Initial Spares	2,318	2,318
Procurement Cost	21,837	21,837
Total	10,157	10,157
	\$10,291	\$10,291

Classification of Missiles

The DOD Missiles Support program provides fleet support material for SSM-2 and procures Harpoon missiles. The FY 1986 budget request for inertially guided anti-submarine weapons for SSM-2 missiles and Type II missiles is a missile launching system for launching missiles for all warfare areas and current and future tubes. This is a missile launching system for launching missiles for all warfare areas and current and future tubes. The FY 1986 request of \$15.6 million provides fleet support material for SSM-2 missiles and Type II missiles with a range of 100 miles. Current systems include Harpoon missiles (HSS) and SSM-2 missiles (SSM-2). Future systems will include SSM-2 missiles (SSM-2) and SSM-3 missiles (SSM-3).

	(in thousands)	
	FY 1986 Estimate	FY 1986 Actual
Procurement	19,157	19,157
Initial Spares	2,318	2,318
Procurement Cost	21,837	21,837
Total	10,157	10,157
	\$10,291	\$10,291

Other Missiles, Bombs

Funds for FY 1988 air-launched missile modification programs are required to improve and update the operational characteristics of SIDEWINDER, PHOENIX and HARPOON missiles. The SIDEWINDER missile modification program, budgeted at \$8 million, provides for modification of the missile airframe to improve reliability, producibility, and maintainability. The PHOENIX missile modification request of \$6 million provides for the continued retrofit of the coldwall in AIM-54A missiles. The FY 1987 HARPOON missile modification, budgeted at \$3.9 million, provides for the continued replacement with improved seekers. The STANDARD missile Medium Range and Extended Range modifications provide for improvements in operational readiness and electronic countermeasure performance in the STANDARD missiles currently deployed. The FY 1988 request includes \$3.8 million provides for the procurement of modification kits to backfit low-altitude and directional ordnance improvements on SM-1 and SM-2 Block 11 missiles in inventory. The TOMAHAWK missile modification, budgeted at \$6.5 million, provides for continued improvement of the guidance set flight computer that allows anti-ship TOMAHAWK missiles to operate from a wider range of launch platforms.

FY 1989 Modification Program

<u>Air-Launched Missiles</u>		<u>Surface-Launched Missiles</u>
(\$ in Thousands)		(\$ in Thousands)
SPARROW *	\$44,119	STANDARD Missiles \$27,467
SIDEWINDER	2,397	TOMAHAWK 7,179
PHOENIX	197	<u><u>TOTAL</u></u> \$34,646
HARPOON *	9,552	
<u>TOTAL</u>	<u>\$56,265</u>	

- SPARROW and HARPOON can also be surface launched.

The FY 1989 funds required for the air-launched missile modification programs are budgeted at \$56.3 million and continue required modifications for SIDEWINDER, PHOENIX and HARPOON missiles, and initiation of the SPARROW low altitude fuze retrofit program. The STANDARD missile modification, budgeted at \$27.5 million, continues the required modifications of STANDARD MR and ER rocket motors and sustainer sections. The TOMAHAWK missile modifications, budgeted at \$7.2 million, continue to improve modifications to the guidance set flight computer and initiate signal certification device modifications.

Support Equipment and Facilities

	(\$ In Thousands)
FY 1989 Estimate	\$757,432
FY 1988 Estimate	\$457,843
FY 1987 Estimate	\$148,932
FY 1986 Actual	\$ 86,650

Support Equipment and Facilities include the Weapons Industrial Facilities, the Defense Meteorological Satellite, Fleet Satellite Communications program, and Ordnance Support Equipment.

Weapons Industrial Facilities

	(\$ In Thousands)	
	FY 1988	FY 1989
Procurement Cost	Qty \$ 6,216	Qty \$ 10,694

The FY 1988 and 1989 estimates of \$6.2 million and \$10.7 million, respectively, for missile and other ordnance producing industrial facilities include funds for capital maintenance, emergency repairs, fire protection improvements, and energy conservation. These funds provide for nonrecurring capital maintenance at government-owned missile and weapon producing industrial plants as well as emergency repairs and improvements designed to reduce fire and other safety hazards.

Defense Meteorological Satellite

	(\$ In Thousands)	
	FY 1988	FY 1989
Procurement Cost	Qty \$ 19,333	Qty \$ 21,463

The Defense Meteorological Satellite program funds the Navy's procurement of microwave imagers. The imager has been developed and previously procured under a joint Navy/Air Force program. The imager is a new sensor tailored for operation onboard a new series of spacecraft that will fulfill Navy data requirements for surface wind speed, precipitation intensity and identification of ice edge, ice coverage and ice age in polar areas. The request includes \$19.3 million in FY 1988 and \$21.5 million in FY 1989 for the procurement of two imagers in each year for the Navy.

Fleet Satellite Communications

(\$ in Thousands)			
	FY 1988	FY 1989	
Qty	Qty	Qty	Qty
Procurement	\$ 213,858	\$ 98,719	
Advance Procurement			\$ 125,000
Procurement Cost	\$ 213,858	\$ 223,719	

The Fleet Satellite Communications (FLTSATCOM) system satisfies the Navy's urgent worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast service to all Navy ships plus a vital command control service to all Anti-Submarine Warfare (ASW) platforms, Fleet Ballistic Missile (FBM) submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. The system also satisfies the Air Force equatorialatorial satellite communication requirements including presidential airborne command posts, Strategic Air Command and emergency mission support communications. A constellation of channelized satellites, placed in geosynchronous orbits, is used to meet Navy and Air Force UHF communications requirements. The worldwide FLTSATCOM system is fully operational and is meeting or exceeding performance requirements.

The \$213.9 million requested for FY 1988 provides for production engineering and procurement of the first of a follow-on series of satellites to replace the existing constellation at the end of its expected operational lifetime in the early 1990's. The \$223.7 million in FY 1989 will pay for acquisition of the follow-on replenishment spacecraft to be launched in the early 1990s.

Ordnance Support Equipment

(\$ in Thousands)			
	FY 1988	FY 1989	
Qty	Qty	Qty	Qty
Procurement Cost	\$ 218,436	\$ 501,556	

No justification materials are provided herein as a result of sensitive security classifications. Back up materials can be provided after required clearances have been cleared through the appropriate authorities.

Budget Activity 3: Torpedoes and Related Equipment

	(\$ in Thousands)
FY 1989 Estimate	- 970,341
FY 1988 Estimate	- 634,385
FY 1987 Estimate	- 606,270
FY 1986 Actual	- 722,670

Purpose and Scope of Work: These funds provide for the procurement of anti-submarine/ship weapons such as torpedoes, mines and underwater targets, torpedo and mine modifications, and associated support equipment items related to production, as well as acquisition of other equipment and support necessary to maintain fleet readiness.

Justification of Funds: Of the \$634.4 million requested in FY 1988, \$564.4 million is for procurement of torpedoes and related equipment, \$16.0 million is for modification of torpedoes and related equipment, and \$54.0 million is for procurement of support equipment.

Of the \$970.3 million requested in FY 1989, \$904.7 million is for procurement of torpedoes and related equipment, \$15.5 million is for modification of torpedoes and related equipment, and \$50.1 million is for procurement of support equipment.

Torpedoes and Targets

	(\$ in Thousands)
FY 1989 Estimate	- 904,692
FY 1988 Estimate	- 564,384
FY 1987 Estimate	- 459,922
FY 1986 Actual	- 558,857

Of the \$564.4 million requested in FY 1988, \$243.5 million is for procurement of 100 Mk-48 ADCAP torpedoes, \$31.5 million is for procurement of 12 mobile targets, \$222.4 million is for procurement of 153 Mk-50 Advanced Lightweight Torpedoes, \$9.5 million is for procurement of ASROC replacement components, and \$57.5 million is for procurement of 260 Vertical Launched ASROC weapons.

Of the \$904.7 million requested in FY 1989, \$541.8 million is for the procurement of 350 MK-48 ADCAP torpedoes, \$14.9 million is for procurement of ASROC replacement components, \$70.5 million for 340 Vertical Launch ASROC missiles (less warheads), and \$277.5 million is for procurement of 224 MK-50 Advanced Lightweight Torpedoes.

The following paragraphs provide justification for the FY 1988 and FY 1989 Torpedoes and Related Equipment request.

Torpedo MK-48 Advanced Capability (ADCAP)

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	Qty	Amt
Initial Spares	100	\$43,444
Procurement Cost	350	\$51,794
	1,2250	16,000
	<u>255,694</u>	<u>557,794</u>

Torpedo MK-48 ADCAP (Advanced Capability) was developed as an improvement to the Torpedo MK-48 to counter enemy submarine threats through the 1990's. The improvements in the guidance and control systems will allow the ADCAP torpedo to operate against targets with reduced sonar target strength and targets which present a low doppler profile and improvements in the propulsion system will allow the torpedo to go faster, deeper and farther than the current MK-48 torpedo. These improvements will allow the ADCAP torpedo to operate in adverse environments such as shallow water, high sea conditions, strong thermal gradients and under ice. FY 1988 and FY 1989 provide for procurement of 100 and 350 ADCAP torpedoes, respectively, production support equipment, production support and continuation of competition for the Afterbody/Tailcone (second source).

Torpedo MK-50 Advanced Lightweight Torpedo

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	Qty	Amt
Initial	153	\$222,402
Procurement	4,420	\$15,172
	<u>226,822</u>	<u>\$292,723</u>

\$222.4 million is requested in FY 88 for 153 ALWT weapons with follow-on procurement in FY 1989 of 224 units for a total of \$277.6 million. ALWT will provide an ASW torpedo for the surface and ASW air weapon systems, providing an underwater submarine destination capability to meet the Navy's needs in the late 1980's and 1990's period. ALWT will provide a replacement for the existing Torpedo MK-46 currently in the Navy inventory.

Mobile Target MK-30

	(\$ in Thousands)			
	FY 1988 Qty	Amt	FY 1989 Qty	Amt
Procurement				
Initial Spares	12	\$31,495		
Procurement Cost	12	\$31,495		

The MK 30 Mobile Target provides air, surface and submarine ASW units with the means to conduct realistic exercise firings on three-dimensional underwater ranges. This target provides the basic training capability to exercise surface ship and submarine sonars, actively and passively fired torpedoes, and aircraft equipped with sonobuoys and Magnetic Anomaly Detection (MAD) gear. The procurement of targets in FY 1988 continues the build up of assets to support achievement of 2,400 MK-30 in-water runs per year at four underwater sites.

ASROC Component Replacement

	(\$ in Thousands)			
	FY 1988 Qty	Amt	FY 1989 Qty	Amt
Procurement				
Initial Spares	-	\$9,522		
Procurement Cost			1	\$14,886
		\$9,522		
				\$14,886

The ASROC (Anti-Submarine Rocket) is a weapon system designed around a range-controlled, unguided rocket missile which carries a torpedo or a depth charge as a payload. ASROC is utilized by most surface combatants to defend against high performance enemy submarines. The FY 1988 and FY 1989 requests provide for procurement of ASROC components to replace those that were expended during fleet training exercises. The principal element of cost in FY 1988 and FY 1989 is the continued procurement of rocket motor and Ignition Separation Assemblies (MK-4 ISA). The ISAs are being procured in a new design which makes them safe from the hazards of accidental detonation caused by shipboard electromagnetic equipment (designated HERO: Hazards of Electromagnetic Radiation to Ordnance). Procurement of the HERO-safe MK-4 ISA is required in order to replenish inventories of the older non-HERO safe MK-3 ISAs depleted by training losses and will eventually replace the entire inventory of the older components.

Vertical Launch ASROC

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	Oty	Amt
Initial Spares	260	57,521
Procurement Cost	340	3,400
	57,861	73,861

Vertical Launch ASROC is a replacement system for the older ASROC weapon system. It will provide a vertically launched weapon to a greater distance with equal accuracy utilizing the latest torpedo/depth charge configuration. The FY 1988 request is for procurement of a limited initial quantity of 260 units with a follow-on in FY 1989 of 340 units.

Modification of Torpedoes and Related Equipment

	(\$ in Thousands)	
	FY 1989 Estimate	\$ 15,547
FY 1988 Estimate	-	\$ 16,015
FY 1987 Estimate	-	\$ 97,685
FY 1986 Actual	-	\$102,901

The \$16.0 million in FY 1988 and the 15.5 million in FY 1989 are requested to fund the following modification programs.

	(\$ in Thousands)	
	FY 1988	FY 1989
Mobile Mine MK 67 (SLMM)	2,858	1,325
CAPTOR Mods	11,825	12,275
Swimmer Weapon System	1,332	1,947

Mobile Mine MK 67 (SLMM)

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	2,858	1,325
Initial Spares	1,436	0
Procurement Cost	4,304	1,325

\$2.9 million is requested in FY 1988 and 1.3 million is requested in FY 1989 in order to support production of SLMM mines.

CAPTOR Mods

\$11.8 million is requested in FY 1988 and \$12.3 million is requested in FY 1989 in order to support procurement of modifications for MK-60 CAPTOR mines currently in the fleet. These modifications will update the older mines to the latest approved production baseline configuration.

Swimmer Weapon System

	(\$ in Thousands)
FY 1988	FY 1989
Procurement	<u>1,332</u>
Initial Spares	62
Procurement Cost	<u>1,394</u>

\$1.3 million is requested in FY 1988 and \$1.9 million is requested in FY 1989 in order to provide for continued procurement of unique weapons and equipment required by the Navy Special Warfare Groups One and Two (SEAL teams) to carry out beach clearance, underwater and direct action missions. Currently, there are eight SEAL teams deployed within the Fleet. The major special warfare system is the stand-off weapon assembly MK-32 which is comprised of the stand-off weapon MK-31 and weapon control system MK-5.

Support Equipment

	(\$ in Thousands)
FY 1989 Estimate	\$50,102
FY 1988 Estimate	-
FY 1987 Estimate	\$53,986
FY 1986 Actual	\$48,663
FY 1986 Actual	<u>\$60,912</u>

Of the \$54.0 million requested in FY 1988, \$33.4 million is for Torpedo Support Equipment, and \$20.6 million is for ASW Range Support.

Of the \$50.1 million requested in FY 1989, \$27.6 million is for Torpedo Support Equipment, and \$22.5 million is for ASW Range Support.

Torpedo Support Equipment

	(\$ in Thousands)
FY 1988	FY 1989
Procurement	<u>33,348</u>
Initial Spares	-
Procurement Cost	<u>33,348</u>

The line item provides the fleet with the components necessary to restore weapons used to conduct training exercises (which involves actually firing the torpedoes) back to a ready-for-issue warshot status. Thus this request supports combat-ready deployment of anti-submarine warfare forces. The funds requested provide for procurement of components expended during torpedo firings such as batteries, pressure cylinders, propellant assemblies and various air-launch accessories; equipment and components worn out or lost during repeated service such as exercise heads and fuel tanks; and production support efforts associated with the above procurements. Procurement quantities of these items vary each year and are dependent upon fleet training requirements and the tempo of operations. The FY 1988 and FY 1989 resources procure the material required to support fleet training exercises and operational inventories for the MK-46, MK-48/MK-48 ADCAP Torpedoes and exercise turnaround kits of the MK-50 Advanced Lightweight Torpedoes.

ASW Range Support

	(\$ in Thousands)	
	FY 1988	FY 1989
Procurement	<u>20,638</u>	<u>22,547</u>
Initial Spares	<u>742</u>	<u>780</u>
Procurement Cost	<u>21,380</u>	<u>23,327</u>

The Anti-Submarine Warfare Range Support Program provides for the procurement of range proofing and fleet support equipments required for use on the Navy's underwater ranges and for the fixed costs of on-range proofing services. This includes the procurement of pingers, transponders, MK-30 and MK-27 Target exercise components and other related items. This line item supports Fleet exercises and torpedo firings and provides equipment for ASW readiness assessment.

Budget Activity 4: Other Weapons

(\$ in Thousands)	
FY 1989 Estimate	- \$103,669
FY 1988 Estimate	- \$101,540
FY 1987 Estimate	- \$86,721
FY 1986 Actual	- \$205,674

Purpose and Scope of Work

These funds provide for the procurement of guns and gun mounts for U.S. Navy and Coast Guard Ships. This budget activity also provides for the associated modifications and support equipment.

Justification of Funds

Of the \$101.5 million requested in FY 1988, \$42.8 million is for 5 Close-In Weapon Systems, 64 MK-19 Mod 3 40MM Machine Guns, 22 25MM Gun Mounts, and Small Arms and Weapons. \$57.6 million is for Gun and Gun Mount modification and \$1.1 million is for support equipment.

Of the \$103.6 million requested in FY 1989, \$33.9 million is for 5 Close-In Weapon Systems, 25 MK-19 Mod 3 40MM Machine Guns, 22 25MM Gun Mounts, and Small Arms and Weapons. \$68.9 million is for Gun and Gun Mount modification and \$.8 million is for support equipment.

The following paragraphs provide justification for Other Weapons. Initial spare parts amounts are included for information under each weapon system, but are separately justified in Budget Activity 5.

Guns and Gun Mounts

(\$ in Thousands)	
FY 1989 Estimate	- \$ 33,915
FY 1988 Estimate	- \$ 42,883
FY 1987 Estimate	- \$130,543
FY 1986 Actual	- \$159,080

Of the \$42.9 million requested for Guns and Gun Mounts in FY 1988, \$28.0 million is for 5 MK-15 Close-In Weapon Systems, \$1.2 million is for 64 MK-19 Mod 3 40MM Machine Guns, \$4.1 million is for 22 25MM Gun Mounts, and \$9.6 million is for Small Arms and Weapons.

Of the \$33.9 million requested for Guns and Gun Mounts in FY 1987, \$19.3 million is for 5 MK-15 Close-In Weapons Systems, \$.5 million is for 25 MK-19 Mod 3 40MM Machine Guns, \$4.3 million is for 22 25MM Gun Mounts, and \$9.8 million is for Small Arms and Weapons.

MK-15 Close-In Weapon System (PHALANX)

	(\$ in Thousands)	
	<u>FY 1988</u>	<u>FY 1989</u>
	<u>Qty</u>	<u>Amt</u>
Procurement	5	\$ 28,023
Initial Spares	1,625	\$ 1,089
Procurement Cost	\$ 29,648	\$ 20,434

The MK-15 Close-In Weapon System (CIWS), or PHALANX, is a fast reaction, terminal defense against low flying aircraft and anti-ship missiles penetrating other Fleet defensive weapon envelopes. The system is an automatic self-contained unit consisting of search and track radar, a digital fire control system and a 20mm M61A1 gun which automatically detects, evaluates, tracks, engages, assesses kill and returns to search mode. The system will be installed in over 300 ships, both new construction and retrofit. The requests of \$28.0 million in FY 1988 and \$19.3 million in FY 1989 provide for the procurement of 5 systems in FY 1988 and 5 in FY 1989 from two production sources.

MK-19 40mm Machine Gun

	(\$ in Thousands)	
	<u>FY 1988</u>	<u>FY 1989</u>
	<u>Qty</u>	<u>Amt</u>
Procurement	64	\$ 1,201
Initial Spares	0	\$ 0
Procurement Cost	\$ 1,201	\$ 492

The MK-19 Mod 3 40mm machine gun provides a more effective, safe and reliable 40mm grenade firing weapon for arming ships and crafts. The MK-19 Mod 3 is planned as an initial issue and replacement weapon for the Navy's present inventory of MK-19 40mm machine guns, and is presently issued to a variety of Navy ships and special forces. The FY 1988 request of \$1.2 million for the procurement of 64 MK-19 Mod 3 40mm machine guns includes new requirements for the SEAFOX craft and construction battalions. The FY 1989 request of \$.5 million is for the procurement of 25 MK-19 machine guns.

25MM MK-38 Gun System

	(\$ in Thousands)		
	FY 1988	Amt	FY 1989
	Qty		Qty
Procurement	22	4,091	22
Initial Spares		120	
Procurement Cost		4,211	
			4,454

The 25MM MK-38 Gun System, a single barrel 25MM M242 automatic gun on the manually operated MK-88 deck mount, is the planned replacement weapon for the 20MM M-16 Machine Gun, and serves a short-range defensive and offensive armament for ships and craft. The requests for \$4.1 million in FY 1988 and \$4.3 million in FY 1989 provide for the procurement of 22 25MM MK-38 Gun Systems in each fiscal year.

Small Arms and Weapons

	(\$ in Thousands)		
	FY 1988	Amt	FY 1989
	Qty		Qty
Procurement		9,568	
Initial Spares		0	
Procurement Cost		9,568	
			9,760
			0
			9,760

The requests for \$9.6 million in FY 1988 and \$9.8 million in FY 1989 for Small Arms and Weapons support the procurement, modernization, standardization and stock replenishment of a wide variety of small arms and weapons, gun mounts and associated support components. The 9MM pistol is procured in this line. Procurements of small arms and weapons support security training, 2,676 ships and ashore activities, Mobile Construction Battalions, Special Warfare Units, and crisis response teams to counter world-wide terrorist threats.

Modification of Guns and Gun Mounts

	(\$ in Thousands)		
	FY 1989 Estimate	-	\$68,920
	FY 1988 Estimate	-	\$57,589
	FY 1987 Estimate	-	\$55,334
	FY 1986 Actual	-	\$45,578

Of the \$57.6 million requested for modification of guns and gun mounts in FY 1988, \$45.2 million is for MK-15 Close-In Weapon System modification, \$6.4 million is for 5"/54 Gun Mount modification, \$0.3 million is for 3"/50 Gun Mount modification, \$4.0 million is for MK-75/15mm Gun Mount modification, and \$1.7 million is for modifications under \$2,000,000.

	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993
(\$ in Thousands)						
Procurement Cost	15,186	15,186	15,186	15,186	15,186	15,186
Initial Spares	0	0	0	0	0	0
Procurement Cost	15,186	15,186	15,186	15,186	15,186	15,186
Initial Spares	0	0	0	0	0	0

The requests for \$45.2 million in FY 1988 and \$54.6 million in FY 1989 are for improvements to the Close-in Weapon System which will result in increased magazine capacity, increased search coverage, improved reliability and maintainability, improvements are also included. Improvements are backfit onto MK-15 Close-in Weapon Systems procured prior to FY 1985 as well as 1162 trainers. Systems procured subsequent to FY 1985 incorporate these improvements in production.

Of the \$68.9 million requested for modification of guns and gun mounts in FY 1989, \$54.6 million is for MK-15 Close-in Weapon System modification, \$8.4 million is for 5/34 Gun Mount modification, \$4.1 million is for MK-75/76MM Gun Mount modification, \$2.2 million is for 3/30 Gun Mount modification, and \$1.6 million is for modifications under \$2,000,000.

MK-15 Close-In Weapons System (PHALANX) Modification

The requests for \$6.4 million in FY 1988 and \$11 million in FY 1989 procure hardware to correct deficiencies, improve operability, reliability, maintainability and availability of all in-service 5/34 Gun Mounts.

3" / 50 Gun Mount Modification

	(\$ in Thousands)		
	FY 1988	Act	FY 1989
Qty	Qty	Qty	Qty
Procurement			
Initial Spares			
Procurement Cost	273	0	259

The requests for \$0.3 million in FY 1988 and \$0.2 million in FY 1989 procure hardware to correct deficiencies, improve operability, reliability, maintainability and availability of all in-service 3" / 50 Gun Mounts.

MK-75/76mm Gun Mount Modifications

	(\$ in Thousands)		
	FY 1988	Act	FY 1989
Qty	Qty	Qty	Qty
Procurement			
Initial Spares			
Procurement Cost	463	376	470

The requests for \$4.1 million in FY 1988 and \$4.1 million in FY 1989 procure hardware to correct deficiencies, improve safety, operability, reliability, survivability, and counter the effects of shock and vibration for all in-service MK-75/76mm Gun Mounts.

Modifications Under \$2,000,000

	(\$ in Thousands)		
	FY 1988	Act	FY 1989
Qty	Qty	Qty	Qty
Procurement			
Initial Spares			
Procurement Cost	0	0	0

The requests of \$1.7 million in FY 1988 and \$1.6 million in FY 1989 procure hardware to improve the safety, reliability, and maintainability of in-service 16" / 50 and 5" / 38 gun systems and other minor caliber ordnance.

Support Equipment

	(\$ in Thousands)	
	FY 1989 Estimate	\$ 834
FY 1988 Estimate	\$ 1,068	
FY 1987 Estimate	\$ 844	
FY 1986 Actual	\$ 1,016	

The requests of \$1.1 million in FY 1988 and \$0.8 million in FY 1989 procure a wide variety of ordnance and support equipment for Surface Gun Systems.

Gun Support Equipment

	(\$ in Thousands)	
	FY 1988	FY 1989
Qty	<u>1,068</u>	<u>834</u>
Amt	<u>1,068</u>	<u>834</u>
Procurement		
Initial Spares	0	0
Procurement Cost	1,068	834

The requests of \$1.1 million in FY 1988 and \$0.8 in FY 1989 procure training aids for Special Warfare Units and industrial personnel, match grade small arms, and saluting mounts.

Budget Activity 5 - Spares and Repair Parts

	(\$ In Thousands)
FY 1989 Estimate	\$143,727
FY 1988 Estimate	\$129,728
FY 1987 Estimate	\$145,777
FY 1986 Actual	\$148,171

Purpose and Scope of Work: These funds provide for the procurement of spares and repair parts for all equipments, weapon systems and support equipment procured under the Weapons Procurement, Navy (WPN) appropriation which require support by the Hardware Systems Command prior to the Navy Supply System Material Support Date (MSD).

Justification of Funds: Of the \$129.7 million requested in FY 1988, \$109.6 million is for Initial spares and \$20.1 million is for Replenishment spares.

Of the \$143.7 million requested in FY 1989, \$125.0 million is for Initial spares and \$18.7 million is for Replenishment spares.

The following paragraphs provide the justification for each program.

Initial Spares

	(\$ in Thousands)
FY 1988	\$109,606
FY 1989	\$125,039

The requested funding provides for the procurement of initial spares and repair parts to support missile, ASW and other weapon/support equipment procured in this appropriation. Requirements for Navy initial spares procurement are determined by detailed provisioning procedures that consider a wide range of factors including the use of the end item, usage rate trends, engineering judgement and repairable item turnaround time.

Replenishment Spares

	(\$ in Thousands)
FY 1988	\$20,122
FY 1989	\$18,688

The requested funding provides for the procurement of replenishment spares and repair parts requirements utilizing a stratification technique which considers the number of equipments/weapon systems installed in the Fleet, repair part usage data, Ready-For-Issue (RFI) spares returning from rework/repair programs and equipment leadtimes to derive net fiscal year budget requirements.

**Comparison of FY 1987 Program Requirements as Reflected
In FY 1987 Budget With FY 1987 Program Requirements as
Shown in FY 1988/89 Budget**

Summary of Requirements (In Thousands of Dollars)

	Total Program Requirements <u>Per FY 1987 Budget</u>	Program Requirements <u>Per FY 1988/89 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	1,437,037	1,359,073	-77,964
Other Missiles	3,343,063	2,968,006	-375,057
Torpedoes and Related Equipment	971,364	606,270	-365,094
Other Weapons	193,202	186,721	-6,481
Shares and Repair Parts	150,734	145,777	-4,957
Reimbursable Program	31,000	31,000	
Total Fiscal Year Program	6,126,400	5,296,847	-829,553

Explanation by Budget Activity

1. **Ballistic Missiles (\$-77,964)**

The net decrease results from specified Congressional reductions (\$-62,000) and inflation (\$-18,351) and revised profit policy (\$-8,156) reductions assessed against all budget activity programs, offset by minor reprogrammings (\$+10,543).

2. **Other Missiles (\$-375,057)**

The net decrease results from specified Congressional reductions (\$-326,158), inflation (\$-40,264) and revised profit policy (\$-17,895) reductions, offset by minor reprogrammings (\$+9,260).

Explanation by Budget Activity

3. Torpedoes and Related Equipment (\$-365,094)

The net decrease is the result of specified Congressional reductions (\$-312,395), inflation (\$-8,795) and profit policy (\$-3,909) reductions, a D0 1415 reprogramming action for the MK-48 ADCAP to ROTAE, N (\$-25,000), offset by minor reprogrammings (\$+14,995).

4. Other Weapons (\$-6,481)

The net decrease is the result of inflation (\$-2,578) and profit policy (\$-1,146) reductions, offset by minor reprogrammings (\$-2,757).

5. Spare and Repair Parts (\$-4,957)

The net decrease is the result of inflation (\$-2,012) and profit policy (\$-894) reductions, offset by minor reprogrammings (\$-2,051).

Comparison of FY 1987 Financing As Reflected
In FY 1987 Budget With FY 1987 Financing As
Shown In FY 1988/89 Budget

(In Thousands of Dollars)

	Financing Per FY 1987 Budget	Financing Per FY 1988/89 Budget	Increase (+) or Decrease (-)
Program Requirements (Total)	6,126,400	5,296,847	-829,553
Program Requirements (Service Account)	6,095,400	5,265,847	-829,553
Program Requirements (Reimbursable)	31,000	31,000	-
Less:			
Anticipated Reimbursements	31,000	31,000	-
Reprogramming from prior year budget plans			
Unobligated balance available from prior			
year to finance new budget plans			
Transferred from other accounts			
Add:			
Unobligated balance available to finance			
subsequent year budget plans			
Appropriation	6,095,400	5,290,847	-854,553
Transferred to other accounts	-	-25,000	-25,000
Appropriation (Adjusted)	6,095,400	5,265,847	-829,553

Explanation of Changes in Financing

The FY 1987 DOD Appropriations Act reduced the FY 1987 President's Budget request by \$804,553. A DD 1415 for the RDT&E, N. MK-48 ADCAP torpedo for \$25,000 is reflected in the FY 1987 column of the FY 1988/89 President's Budget request.

Comparison of FY 1986 Program Requirements as Reflected
In FY 1987 Budget With FY 1986 Program Requirements as
Shown in FY 1988/89 Budget

Summary of Requirements (In Thousands of Dollars)

	Total Program Requirements Per FY 1987 Budget	Program Requirements Per FY 1988/89 Budget	Increase (+) or Decrease (-)
Ballistic Missiles	602,560	547,940	-54,620
Other Missiles	3,455,859	3,131,983	-323,876
Torpedoes and Related Equipment	782,732	722,670	-60,062
Other Weapons	223,447	205,674	-17,773
Shares and Repair Parts	151,497	148,171	-3,326
Reimbursable Program	30,000	27,491	-2,509
Total Fiscal Year Program	5,246,095	4,783,929	-462,166

Explanation by Budget Activity

1. Ballistic Missiles (\$-54,620)

The decrease results from the application of Congressional Gramm-Rudman-Hollings (\$-29,526) and undistributed inflation revisions (\$-17,694), and DD 1415 reprogramming actions (Poseidon, \$-1,300; Trident I, \$-6,100; Astronautics, \$-1,000) for Contra Aid and a classified Defense Nuclear Agency reprogramming (Astronautics, \$-4,000), offset by minor reprogrammings (\$+5,000).

2. Other Missiles (\$-323,876)

The decrease results from the application of Congressional Gramm-Rudman-Hollings (\$-169,909) and undistributed inflation revisions (\$-67,445) reductions; Congressional decisions to the Tomahawk (\$-30,800) and Standard Missile (SM-2) (\$-31,100) programs; reprogramming actions for Contra Aid (\$-6,300) and a classified Defense Nuclear Agency action (\$-11,400); offset by a denied reprogramming (\$+11,700) and other minor reprogramming actions netting (\$-18,622), including a reduction in program requirements to the Harpoon program (\$-7,480).

3. Torpedoes and Related Equipment (\$-60,062)

The decrease results from the application of Congressional Gramm-Rudman-Hollings (\$-38,353) reductions, inflation revisions (\$-26,264), offset by minor reprogramings (\$+4,555).

4. Other Weapons (\$-17,773)

The decrease results from the application of Congressional Gramm-Rudman-Hollings (\$-10,947) reductions, inflation revisions (\$-7,103), offset by minor reprogramings (\$+277).

5. Spares and Repair Parts (\$-3,326)

The decrease results from the application of Congressional Gramm-Rudman-Hollings (\$-7,422) reductions and inflation revisions (\$-4,716), offset by minor reprogramings to initial spares (\$+8,812).

Comparison of FY 1986 Financing As Reflected
In FY 1987 Budget With FY 1986 Financing As
Shown in FY 1988/89 Budget

(In Thousands of Dollars)

	<u>Financing Per FY 1987 Budget</u>	<u>Financing Per FY 1988 Budget</u>	<u>Increase (+) or Decrease (-)</u>
Program Requirements (Total)	5,246,095	4,783,929	-462,166
Program Requirements (Service Account)	5,216,095	4,756,438	-459,657
Program Requirements (Reimbursable)	30,000	27,491	-2,509
Less:			
Anticipated Reimbursements	30,000	27,491	-2,509
Reprogramming from prior year budget plans			
Unobligated balance available from prior			
year to finance new budget plans			
Transferred from other accounts			
Unobligated balance rescinded			
Add:			
Unobligated balance available to finance			
subsequent year budget plans			
Appropriation (Adjusted)	5,216,095	4,971,638	-244,457

Explanation of Changes in Financing

The net decrease in program requirements reflects rescissions applied by the FY 1987 DOD Appropriations Act (\$-30,800 from Tomahawk; \$-31,100 from SM-2; and \$-123,200 for undistributed inflation revisions) and Gramm-Rudman-Hollings (\$-256,157) reductions. Additionally, reprogramming actions for Contra Aid (\$14,700) and the Defense Nuclear Agency (\$-15,400) are included, offset by a denied reprogramming (\$+11,700). The adjustment for reimbursables reflects an anticipated \$2,509 decrease in reimbursable orders.